CLAIMS

What Is Claimed Is:

1. A method comprising:

providing a first element at a first temperature, the first element comprising a first dimension at the first temperature;

providing a second element at a second temperature, the second temperature lower than the first temperature, the second element comprising a second dimension at the second temperature, the second dimension lesser than the first dimension;

coupling the first and second elements to create an assembly; and

changing the first temperature to a third temperature, the first element comprising a third dimension at the third temperature, the third dimension lesser than the first dimension, thereby preloading and interlocking the assembly.

2. The method of claim 1, wherein coupling the first and second elements comprises maintaining substantially the second temperature.

3. The method of claim 2, wherein coupling the first and second elements further comprises maintaining substantially the first temperature.

4. The method of claim 1, further comprising:

changing the second temperature to a fourth temperature, the second element comprising a fourth dimension at the fourth temperature, the third and fourth dimensions substantially equal.

5. The method of claim 4, wherein the third and fourth temperatures are substantially equal.

6. The method of claim 4, wherein the first and third temperatures are substantially equal.

7. The method of claim 1, wherein the first element further comprises a first protrusion and a second protrusion, and

wherein the second element further comprises a first end and a second end, the first protrusion of the first element adapted to contact the first end of the second element, and the second protrusion of the first element adapted to contact the second end of the second element.

8. The method of claim 7, wherein the first dimension of the first element comprises a distance between the first and second protrusions at the first temperature,

the second dimension of the second element comprises a distance between the first end and the second end at the second temperature, and

the third dimension comprises a distance between the first and second protrusions when the first element is changed to the third temperature.

9. The method of claim 1, wherein the first element comprises a metal comprising a coefficient of thermal expansion in a range between approximately 10 micrometers per

degree Celsius per meter and approximately 25 micrometers per degree Celsius per meter.

10. The method of claim 1, wherein the first element comprises a polymer comprising a coefficient of thermal expansion in a range between approximately 0 micrometers per degree Celsius per meter and approximately 1000 micrometers per degree Celsius per meter.

11. The method of claim 1, wherein the second element comprises a metal comprising a coefficient of thermal expansion in a range between approximately 10 micrometers per degree Celsius per meter and approximately 25 micrometers per degree Celsius per meter.

12. The method of claim 1, wherein the second element comprises a polymer comprising a coefficient of thermal expansion in a range between approximately 0 micrometers per degree Celsius per meter and approximately 1000 micrometers per degree Celsius per meter.

13. The method of claim 1, wherein the first element comprises a coefficient of thermal expansion different than the second element.

14. The method of claim 1, wherein the second element further comprises an insulating coating adapted to allow differential heating of the first and the second elements.

15. A method comprising:

heating a first element comprising an initial dimension, where the first element is part of an assembly, to a first temperature sufficient to expand the initial dimension to a first dimension, the first dimension greater than the initial dimension; and

removing the first element from the assembly.

16. The method of claim 15, wherein a coefficient of thermal expansion of the first element comprises a first value and a coefficient of thermal expansion of the assembly comprises a second value, the first value different than the second value.

17. A method comprising:

heating a first element comprising an initial dimension to a first temperature sufficient to expand the initial dimension to a first dimension;

coupling the first element and a second element, the second element comprising a second dimension at a second temperature, the second dimension greater than the initial dimension and lesser than the first dimension, thereby creating an assembly; and

cooling the first element to a third temperature sufficient to preload and interlock the assembly, the third temperature less than the first temperature.

18. The method of claim 17, further comprising cooling the second element to the second temperature, the second temperature cooler than the first temperature.

19. A method comprising:

maintaining a first element comprising a first dimension at a first temperature;

cooling a second element comprising an initial dimension, where the initial dimension is greater than the first dimension of the first element, to a second temperature, lower than the initial temperature, sufficient to contract the initial dimension to a second dimension, the second dimension lesser than the first dimension of the first element;

coupling the first and second elements, thereby creating an assembly; and

warming the second element to a fourth temperature sufficient to preload and interlock the assembly, the fourth temperature greater than the second temperature.